IN THE DESCRIPTION

Please amend the description as follows:

[0022] With reference to Figure 1, a ~~A~~ first or proximal end portion 14 of the optical transceiver module 10 is to be coupled directly to a card edge connector 16 that is covered in a metal shroud 18 and is otherwise connected to a network adapter card 20 housed within the confined space 22 formed by the ~~a~~ host data transfer system 12. The host data transfer system 12 can be a mid-range computer system commercially available from International Business Machines Corporation, Armonk, N.Y. Other types of data transfer or communication systems are contemplated for use with the optical transceiver module 10 of the present invention, such as input/output devices or other peripheral devices. The optical transceiver module 10 is otherwise ~~slidably~~slideably received within one of a plurality of elongated slots 24 formed in the network adapter card 20 in a manner to be described. A suitable connector end portion 26 at the distal end of the optical transceiver module 10 is releasably coupled to a data transfer system bezel or wall 28 through threaded fastener members 29 attached to a flange after being inserted into a system access opening 30. The connector end portion 26 has ports (not shown). The connector end portion 26 is to be coupled to a suitable push-pull duplex "SC" connector (not shown) in a known manner. While a duplex "SC" type connection is envisioned, a comparable end portion cooperable with other known connectors, such as for example, a single "SC" connector, a "LC" connector, or a "MT-RJ" connector can be used.

[0023] With reference to Figures 2 to 5 ~~Essentially~~, the optical transceiver module 10 comprises, a housing assembly 32 including a carrier member 34 being matable to a heat dissipating apparatus or heat sink cover or member 36; and, an electro-optical subassembly 38 that is substantially enclosed by and between the heat sink cover and carrier members 36 and 34, respectively. The carrier member 34 and heat sink cover 36 can be made from a variety of suitable materials that are selected to ensure generally uniform heat dissipation yet maintain effective electromagnetic interference (EMI) shielding. The carrier member 34 has, preferably, an integral parallelepiped construction and can be fabricated from any number of suitable materials that are generally used for optical transceivers. Ideally, the carrier member 34 is made of a low-cost, die-cast metal, such as ~~aluminium~~aluminum or zinc, or a plastic with a metallized coating. An upstanding peripheral wall 40 surrounds and, in part, defines an enclosure 42 (FIGS. 3-5), which is a space between the carrier member 34 and the heat sink cover 36 for receiving the electro-optical assembly 38. The upper surface of the wall 40 engages a bottom wall of the heat sink cover member 36 to maintain effective EMI shielding. The wall 40 does not extend across the proximal end of the carrier member 34 and this allows an end portion 43 of a printed circuit board 44, forming a part of the electro-optical assembly 38, to protrude out of the optical transceiver module. A pair of spaced apart and generally parallel pedestals 46 (FIG. 5) is raised from the ~~carrier~~ floor of carrier member 34 for purposes of providing a datum surface for the bottom surface of the heat sink cover 36. A pair of L-shaped card mounting members 48, only one of which is shown extends along each longitudinal

marginal edge of the optical transceiver module 10. Each of the mounting members 48 defines a corresponding guiding channel 50 that is adapted to receive ~~the~~ edges 52 (FIG. 1) defining the slot 24. A row of longitudinally spaced apart spring members 54 is attached to a bottom surface of each of the mounting members 48. The spring members 54 serve to flexibly and resiliently bias the optical transceiver module 10 to the network adapter card 20 as well as permit bi-directional sliding motion of the optical transceiver module 10 to the network adapter card 20. As noted above, the printed circuit board member 44 is sized and configured to mount ~~be mounted~~ within the enclosure 42 and has the end portion 43 extended slightly from the housing assembly 32 as illustrated in Figures 2 to 4 for interconnection to the connector 16 (see Figure 1). The printed circuit board 44 may comprise any suitable type of rigid or flexible type substrate. A known type of card edge connector, not shown, is at the end of the printed circuit board 44 so as to register with the connector 16 in a known manner. The printed circuit board member 44 is formed with a pair of generally parallel and spaced apart cutouts 56 (FIG. 5), each of which receives a respective one of the pedestals. As is known, this electrical connection is effective for interconnecting the electro-optical assembly with the data transfer assembly.

[0024] Because of the heat generated due to operation of the electro-optical assembly 38, it is important to maximize heat transfer therefrom. For instance, the laser driver chip 58 tends to operate at relatively higher temperatures than some of the other components on the printed circuit board 44. One effective technique is to establish a thermal conductive path therefrom to the inside wall portion of the heat sink cover

36. While the laser driver chip 58 is shown in an upstanding relationship from the printed circuit board 44, it will be appreciated that other components have upstanding relationships, such as the known type of electro-optical transmitter subassembly (TOSA) unit 60 and an electro-optical receiver subassembly (ROSA) unit 62. Both the TOSA 60 and ROSA 62 are wired to the laser driver chip 58 mounted on the printed circuit board 44.

[0025] The heat sink cover 36 facilitates heat dissipation from operation of the electro-optical assembly 38. In this embodiment, the heat sink cover 36 is generally thin and rectangular in overall shape. A plurality of heat dissipating elements or fins 64 project upwardly from an external surface thereof; for purposes of clarity only a portion of the fins 64 are illustrated in FIG. 1, but are more completely illustrated in FIGS. 2-5. The fins 64 are deployed in a generally parallel and spaced apart relationship in the manner illustrated. The fins 64 are generally uniformly spaced apart relative to each other to allow air flow therebetween for an effective convective cooling relationship. Of course, the present invention contemplates that the fins 64 can have other configurations, spacings and heights. In fact, the fins 64 need not substantially cover the upper surface area of the heat sink cover 36. The proximal end of the heat sink cover 36 has a generally thin protective lip 68 extending over and beyond the protruding end portion 43 of the printed circuit board 44.

[0026] The present invention includes one preferred embodiment of a coupling mechanism 70 that comprises a pair of coupling arms, coupling elements 72 adjacent a distal end portion of

the heat sink cover 36. Each of the coupling elements 72 is, preferably, formed integrally on opposing longitudinal edges of the heat sink cover 36 and is adapted to cooperate with cooperating structure 73 on a distal end of the carrier. A distal end portion 74 of each of the coupling elements 72 faces away and downwardly from the protective lip 68 for cooperation with corresponding elongated and curved slots 76 formed in sidewalls 40. The slots 76 also form part of the coupling mechanism 70. In this regard, each of the slightly curved slots 76 is sized and configured to allow for relative pivotal movement of the heat sink cover 36 with respect to the carrier member 34 when the coupling elements are inserted therein. Essentially, the slots 76 effect a camming action. The generally arcuate shape of the slots 76 effects a slight pivoting action of the heat sink cover 36 in a controlled path about a pivot axis 78 in response to the coupling elements 72 being inserted thereinto. Because of the camming provided by the slots 76 about the offset pivot axis 78 a controlled opening and closing motion of the heat sink cover 36 relative to the carrier member 34 and electro-optical assembly 38 is easily effected. This is accomplished with relatively substantially fewer components. Accordingly, the heat sink cover 36 is guided into the desired closed condition covering the enclosure 42 without imparting loading forces; especially lateral loading that might damage upstanding components of the electro-optical assembly 38. As a consequence, during assembly and/or disassembly of the heat sink cover 36 the potential of damage to such upstanding components is greatly diminished if not eliminated by the coupling mechanism 70 of the present invention. Also, the width of each of the slots 76 has a slightly tapered configuration thereby facilitating an even more secure interconnection with the complementary sized and

shaped coupling elements 72. Such an interconnection minimizes compromise of EMI shielding integrity. In the broader context of the present invention, it will be appreciated that the coupling elements 72 could be on the carrier and the slots 76 provided in the heat sink cover 36.

[0027] It will be noted in FIG. 3 that the linear distance 79 the end portion 43 protrudes from the heat sink cover 36 is selected to be slightly less than the length of arcuate motion of the coupling elements 72 within each of the slots 76, in order to permit the heat sink cover 36 pivotal movement ~~pivotally moving~~ without interfering with the circuit board 44 while the heat sink cover 36 is being assembled or disassembled. In addition, the heat sink cover 36 has a pair of straddle members 80 straddling and engaging longitudinal marginal edges of the circuit board 44 and act to engage the carrier end for effecting stoppage of the motion of the coupling elements 72 relative to the slots 76 during assembly/disassembly. A tight locking engagement of the coupling elements 72 within the slots 76 is effected (FIG. 2) and as a result, effective maintenance of the EMI shielding is retained.